

EXECUTIVE SUMMARY  
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UNION CARBIDE CORPORATION

Deremo Mine

Sections 2, 10, 11, 14, 15, T. 33S., R. 26E.

San Juan County, Utah

ACT/037/025

November 27, 1978



#### LOCATION:

Union Carbide Corporation is operating an underground random room and pillar uranium mine located in Colorado with associated development in Sections 2, 10, 11, 14, and 15, Township 33 South, Range 26 East, San Juan County, Utah. Surface facilities within Utah include three ventilation shafts and associated access roads, a waste-rock dump, an ore stockpile, and an evaporation pond for mine-water discharge. Present plans are to continue mining without further major development. Consult the enclosed maps for site location.

#### SOILS AND GEOLOGY:

The soils are sandy, with rock outcrops, and support vegetation. The mine site is located in pinyon-juniper rangeland; however, soils of nearby areas support agriculture. Soils were not segregated and stockpiled prior to mining which commenced prior to 1975. Union Carbide will attempt to revegetate the spoil material without respreading soil over the material.

Uranium ore is mined from the Salt Wash member of the Morrison Formation with random room and pillar techniques. The triple shaft entry is located in Colorado.

#### HYDROLOGY:

There are no perennial streams immediately adjacent to the mine site. Waste dumps and other surface disturbances are constructed to avoid blocking natural drainage.

Water is encountered in the underground workings and is pumped out of the mine at a rate of approximately 30 gallons per minute. The water is impounded and evaporated in a series of three ponds, the last of which is located in Utah. At the termination of mining the discharge will cease and the ponds will be reclaimed.

#### ECOLOGY:

Pinyon pine and Juniper comprise the overstory and native grasses comprise the understory. The area has been determined to be of limited value for wildlife by the Division of Wildlife Resources.



STRUCTURES AND FACILITIES:

Structures and facilities that presently exist within Utah include three vent shafts, an ore stockpile, a spoil dump, and access roads. No additional surface disturbance within Utah is planned.

MINING AND RECLAMATION:

Union Carbide has committed to the following:

During Operations:

- a. Mining will be conducted in a safe, sound technical and prudent miner-like manner.
- b. Future site expansion will salvage topsoil in advance of development and it will be stored in stabilized and revegetated stockpiles.
- c. New access roads will be constructed in a manner agreeable to the surface owners and to allow for proper drainage.
- d. Revegetation tests will be employed.
- e. Seep water encountered during mining will be pumped to the surface and held by a series of evaporation ponds.

After Operations:

- a. Surface debris, scrap metal, discarded wood, and unuseable buildings will be buried or removed from the site.
- b. Portals, shafts, and ventilation holes will be sealed to prevent unauthorized or accidental entry.
- c. Dumps, pads and other disturbed sites will be stabilized by rounding off outer edges, reducing the slope of the rock faces and regrading drainage contours.



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- d. Compacted surfaces will be scarified, seeded with a grass-shrub seed mixture in the fall, and drag covered.
- e. Water evaporation ponds will be reclaimed.
- f. Reclaimed areas will be monitored and reseeded if necessary.

IMPACTS:

The mine facilities were in existance prior to the Utah Mined Land Reclamation Act. The Reclamation Plan will eliminate safety hazards and reduce visual and environmental impacts.

SURETY ESTIMATE:

Surety for this operation was estimated to be \$10,696.21 which includes 5% inflation for a period of 9 years, the expected life of the mine. Surety includes the following:

- a. Removal of structures and equipment.
- b. Removal of trash and debris.
- c. Regrading of the spoil pile.
- d. Soil preparation and seeding of all disturbed areas.
- e. Sealing of the three vent shafts.
- f. Removal of hazardous materials.
- g. Reseeding and monitoring if necessary.
- h. 5% inflation for the expected life of the mine.

A copy of the surety estimate is enclosed.



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APPLICATION HISTORY:

June 23, 1978

Mining and Reclamation Plan received.

April 12, 1978

Initial Division inspection.

November 17, 1978

Letter from Union Carbide received stating  
that evaporation ponds will be reclaimed  
upon termination of mining.